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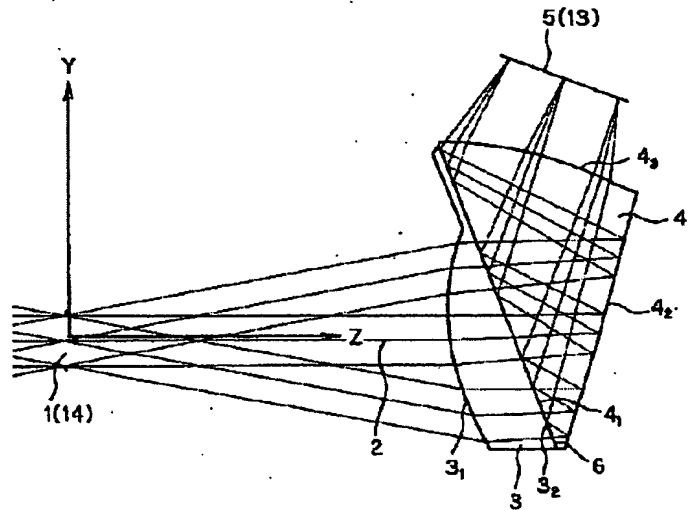
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TITLE : OPTICAL SYSTEM AND DEVICE
USING THE SAME



ABSTRACT : PROBLEM TO BE SOLVED: To provide an observation optical system for a display device which is utilized with high efficiency at a plurality of wavelengths, is bright and good in color reproducibility and makes display image observation well corrected to obtain aberrations possible and an imaging optical system.

SOLUTION: This optical system includes volume hologram elements 6 joined and arranged between a first prism 3 and a second prism 4. The hologram elements 6 includes the first volume hologram optimized to make Bragg diffraction at least at the first wavelength and the second volume hologram optimized to make Bragg diffraction at the second wavelength different from the first wavelength. The shapes and intervals of the interference fringes of the hologram surfaces of the first volume hologram and second volume hologram of the hologram elements 6 are the same as each other and the spacings and inclinations of the interference fringes within the hologram media are different from each other.

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